occurs upon the wing, but numbers of specimens show that a sweep of the net through the swarm at first catches nothing but males carrying the objects that had been strewn on the water, while a later sweep catches pairs still carrying the same objects. The specimens illustrating this investigation are all carefully labelled with the hour and minute at which the different samples were secured.

Mr. Hamm's admirable experiments also enabled him to determine that the females carry the objects provided by the males; for although they are never retained when the pairs are captured, the white florets or the yellow stamens can be seen hanging from the lower *Hilara* of each flying pair, and the lower is invariably the female.

The climax is reached in the males of certain species of *Hilara* which envelope the prey or other minute object in a cocoon, varying greatly in complexity, but in the most extreme cases of striking beauty and regularity. The cocoon is spun upon the wing, so that the method of its construction cannot be followed. Captured individuals are often found to have extruded a viscid globule—probably the material out of which the cocoon is spun. There can be little doubt that in these extreme cases it is the cocoon itself which acts as a stimulus to the female, although the minute and almost invisible object usually enclosed in it, but sometimes dropped, is the stimulus which incites the male to spin. Cocoons that have been dropped, probably after pairing, are constantly picked up and used over again by other males.

These novel and surprising conclusions, obtained as the outcome of Mr. Hamm's energy, resource, and power of accurate observation, are illustrated and confirmed by an immense mass of mounted material, catalogued under 355 numbers in 1910, and no less than 660 in 1911."

TWO DIPTERA *(LIMNOBIIDÆ)* NEW TO BRITAIN.

BY A. E. J. CARTER.

1. Dicranomyia rufiventris, Strobl.

This species is closely allied to *Dicranomyia morio*, Fabr. It was described as a variety of that species by Strobl in 1900 under the name of var. *rufiventris*, differing from typical *morio* in having the abdomen, genitalia, and legs "einfarbig rotgelb," and the wings not grey, but light brownish tinged with a very pale stigma.

A male in my collection, taken at Aberfoyle, Perthshire, on August 21st, 1906, has always been a puzzle. It runs down with

Schiner to *Limnobia pilipennis*, Egger, but the apical part of the wing is not distinctly hairy, and the apex of Sc 1 (end of the auxiliary vein) is placed almost above the base of Rs (second long vein), and not beyond it as in Egger's species. It was with interest, therefore, that I noticed Lundström's record (Acta Soc. Fauna et Flora Fennica, 29, No. 8, 1907) of a *Dicranomyia* from Finland as doubtful *pilipennis*. It was evident from Lundström's remarks that his specimens belonged to the same species as my insect, as the latter agreed with all the characters in which Lundström's species differed from *pilipennis*. In the recently published Part VIII of his valuable "Beitr. zur Kennt. der Dipt. Finlands" (op. cit. 36, No. 1, 1912) Lundström corrects his former record and identifies his insect with Strobl's short description of *Dicranomyia morio* var. *rufiventris*, stating, however, that it is not a variety, but a perfectly good species, quite distinct from *morio*. My specimen agrees with all that Lundström says, and a caustic potash preparation of the hypopygium accords with his Fig. 46 (Part VIII, Taf. 3). I take *D. morio* in this part of Perthshire, but so far have not come across *rufiventris*.

2. Acyphona areolata, Siebke.

This is another interesting fly which had long baffled all my attempts at identification, and it was only recently while studying Wahlgren's important paper on Zetterstedt's types of Nemocera (Arkiv f. Zool., Bd. 2, No. 7) that I found the clue to what it is. A reference to "Insectorum Norvegicorum," Fasc. IV (1877), led me to consult that work, and I have no doubt that my insect is Siebke's *Erioptera areolata*. It answers very well to the description given, but I can see very little sign of the darkening of the tips of the femora or tibiæ. The whole insect is pale brownish yellow, darkened above on thorax and abdomen; the latter having the hind margins of the segments and the hypopygium yellow. The very small discal cell, "subcuneate" in form, is a characteristic feature.

The straight anal vein (A 2) places this species in Osten Sacken's genus *Acyphona*, as Wahlgren points out, and our List will now contain two species in that genus.

I have one specimen only, a male caught at Musselburgh, Midlothian, on July 30th, 1906. The species is recorded by Lundström from two districts in Finland.

Blairgowrie, Perthshire:
June 19th, 1913.